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ABSTRACT

A survey obtained data on the state of the art of career education programming for the handicapped in the New England states. The survey was designed to obtain data regarding respondent demography, curriculum and instruction, scope and breadth of career education, students, and opinions on future programmatic needs. Two hundred professionals known to be interested in career education for the handicapped were surveyed. Based on eighty-one responses, the several findings included the following: (1) More males than females work in the field of career education for the handicapped, (2) a significant proportion of the respondents do not use advisory committees in curriculum development activities, (3) few of the respondents are working in programs where career education is infused throughout the entire curriculum, (4) a significant number of respondents did not know the percentage of students in their programs who would be ready to enter the job market in any given year with salable skills, and (5) when asked to rank order eleven future programmatic needs, the highest priority item was the identification of special skills of the field and training teachers working with handicapped persons in career and vocational education. (This report concludes with twenty-three specific recommendations and two high priority summary recommendations.) (EM)

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SURVEY OF CAREER EDUCATION FOR THE HANDICAPPED IN THE SIX NEW ENGLAND STATES

by

David C. Gardner
Department of Business and
Career Education
Boston University

October, 1977

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ABSTRACT

SURVEY OF CAREER EDUCATION FOR THE HANDICAPPED IN THE SIX NEW ENGLAND STATES

by

David C. Gardner
Department of Business and Career Education
Boston University

Surveyed a stratified random sample of 200 educational personnel concerned with career education for the handicapped in the six New England states. Findings include demographic data on respondents, current data on curriculum and instruction programs, percentages of students enrolled in career education programs by grade levels, guidance programs, methods and activities, frequency of published goals and school board policies, information on students related to career education, common program placement procedures, job readiness, and future needs. Also contains 28 recommendations for action based on findings of survey. (41 pages).

FINAL REPORT

SURVEY OF CAREER EDUCATION FOR THE HANDICAPPED IN THE SIX NEW ENGLAND STATES

by

David C. Gardner
Boston University

Prepared for:

Dr. William Heller, Director
Project RETOOL
Box 2592
University of Alabama
University, Alabama 35486

Dr. Jeffrey Schilit
Survey Director
Project RETOOL
State University College - Buffalo
1300 Elmwood Avenue
206 Ketchum Hall
Buffalo, New York 14222

Survey Instrument Design Committee

J. Schilit
H. Colella
D. Gardner
C. Reichard
P. Smeltzer
G. Meers
B. D'Alonzo

A. INTRODUCTION

The purpose of this survey, as part of a national survey conducted under the auspices of Project RETOOL, University of Alabama, was to obtain data on the "state of the art" of career education programming in the six New England states (Massachusetts, New Hampshire, Connecticut, Maine, Vermont and Rhode Island) as part of a national survey. The survey instrument was developed by a team of six national consultants under the direction of Dr. Jeffrey Schilit, State University College-Buffalo. As concerned with career education for the handicapped, the survey was designed to obtain the following information:

1. Demographic data on respondents;
2. Curriculum and instruction data;
3. Scope and breadth of career education;
4. Information on students;
5. Opinions on future programmatic needs.

Some Conceptual Problems

In a recent workshop conducted at Boston University (July 1977), Dr. Kenneth Hoyt discussed seven problems which need to be resolved before career education will be fully implemented in the United States. The first problem which he discussed in that session dealt with the need to define what we mean by the career education treatment. Career education, he reported, is comprehensive in only about 3% of the schools in the United States, but about 50% have begun implementation. The problem, however, is that each school may have a different definition of the career education treatment. In a recent study by Deborah G. Bonnet (1977) of 108 career education funded projects (USOE), she pointed to the very real problem for those evaluating and comparing career education programs; that is, it is nearly impossible to compare one program to another, even those

with "student outcome" measures. The problem is related to definition; Bonnet found considerable variation in the scope, intensity and instructional strategies of the 45 projects which she attempted to evaluate and compare. For example, in defining career education curriculum infusion, definitions of the term by the 45 projects ranged from "any method that the classroom teacher utilizes" to "use of commercial products or locally produced units" to just the "teaching style" of individual teachers who do career education without any conscious effort.

In terms of this survey, the definition used was the official one (Hoyt, 1975). However, that definition does not clearly spell out what is meant by the career education treatment. In a sense, then, the survey instrument may have predetermined a unique definition of the career education treatment by the nature of the questions asked and the data collected.

Survey Design

There were several factors incorporated in the design of the survey instrument which have been shown to be effective either in increasing return rate or the validity of responses. For instance, the topic itself was one which is increasingly receiving high visibility in the profession. This factor is important in increasing return rates (Best, 1970, p. 170). Another factor important to increasing return rate that was addressed in the survey design was the regional structure of the six mailings by six consultants. Respondents would be likely to recognize the sender or his organization using this approach. This factor has been shown to positively affect return rate (see Pucel, et al, 1970).

Lastly, the survey instrument was attractively printed. This is also an important survey procedure strength (Best, 1970).

There were, however, several design problems that were clearly in evidence First, due to the nature of the national committee of part-time consultants (and time constraints), the team was unable to pilot test the instrument. Secondly,

since project objectives called for an all-inclusive collection of available data, the survey instrument was much too long. Both of these factors are considered serious survey design weaknesses (Issac, 1971, p. 2).

Finally, due to a number of factors beyond the control of the consultants, the timing of the mailing of the questionnaire (a critical item affecting return rate, according to Pucel, et al, 1970) was an unavoidable problem. Questionnaires were mailed in early July, a time period in which most respondents (educators) are on extended vacations. Since the deadline for returns was established as September 5, 1977, the likelihood that a second, follow-up mailing would have increased returns was low. Given these considerations, the method of sample selection and the packaging procedures became increasingly important to ensure adequate return rate. Also, since questionnaire pretesting was not possible, a procedure for checking for possible response-set bias was preplanned (see page 41).

B. PROCEDURES

Sample

The sample consisted of 200 professionals known to be interested in the topic of career education for the handicapped.

During the period prior to the actual establishment of the mailing date, names of persons in New England were collected from the following lists:

1. Persons who had expressed an interest in attending one of two career education for the handicapped conferences, sponsored by the Department of Business and Career Education, Boston University, during the spring of 1977. These conferences were both nationally and locally advertised (e.g. Career Education News; The Specific Learning Disabilities Gazette; The Common). In addition to press coverage, a mailing to some 1,500 professionals was made. (For details, see Gardner & Kurtz, 1977).

2. A list of persons who actually attended the two conferences.
3. A list of members of the National Association for Career Education.
4. A list of interested persons provided by selected state officials.
5. A list of persons who had requested, within the last year, information on the Department's Dual Specialization in Career Education and Special Education.
6. A small list of Boston University alumni known to be working in this specialized field.
7. Several departmental lists of persons who are school administrators, state officials, vocational educators, vocational rehabilitation personnel, career educators, special educators, etc., interested in the broad topics of career education and special education.

A weighted random sample of 200 names was selected from the approximately 2,000 names contained in the lists above. Weights were assigned to give preference for selection on the basis of estimated degree of interest. Weights were assigned as follows:

Description	Likelihood of Selection (Weights)
Graduates of Dual Specialization in Career Education & Special Education Program	Four times as likely (4X)
Attend career education for handicapped conference(s).	Three times as likely (3X)
Conference inquirer; recent state supplied high interest list; recent dual specialization inquirer.	Twice as likely (2X)
Departmental lists of administrators, etc. and/or listed as member of National Association for Career Education	One times (1X)

No attempt was made (other than randomization) to ensure a proportionate distribution of the sample by job title or by state population. In addition

to developing procedures to select a sample with "high interest" in the topic, several other procedures which have been shown to be effective in increasing return rate were used. The return envelope was "colored," pre-addressed and stamped. A familiar letterhead (Boston University) was used and the letter was offset primted.

C. RESULTS AND DISCUSSION

This section of the report is divided into six sections. Under each section, the tabulated data is reported and a brief discussion follows. Sections are titled to match various subsections in the survey instrument. In some instances, portions of subsections are separated for clarity.

I. RETURN RATE

Eighty-one (81) returns were received by September 5, 1977. One letter was returned undeliverable. Presumably, 199 persons actually received the questionnaire. Return rate was 40.7% (81/199). Five returns were not usable. Usable return rate was 38% (38/199). Considering the timing of the mailing, the length of the questionnaire and the lack of opportunity to make a second, follow-up mailing, the return rate appears to be acceptable for the purposes of this study.

II. DEMOGRAPHICS OF RESPONDENTS

The weighted random sample procedure used in selecting subjects resulted in a disproportionate number of subjects being selected from Massachusetts and New Hampshire as compared to subjects selected from the remaining four New England states. There was, therefore, a correspondingly disproportionate number of returns received from Massachusetts and New Hampshire as compared to the remaining four states. In order to test for possible differences between the larger proportion of respondents (Massachusetts plus New Hampshire) and the

smaller proportion of respondents (Connecticut, Rhode Island, Maine, Vermont), chi square analyses for differences between the two groups were made on the following demographic variables: (1) sex; (2) degree levels; (3) age; (4) years of business experience; (5) years of teaching experience; and (6) years of career education experience.

Subjects from Massachusetts and New Hampshire (the larger proportion of the sample) and subjects from the remaining four New England states were compared on each variable by combining the New Hampshire-Massachusetts responses into one group and the responses from the remaining four New England states into a second group.

The first group (Massachusetts plus New Hampshire respondents) was labeled MNH. The second group was labeled CMRV (Connecticut, Maine, Rhode Island, Vermont). For chi square analysis, individual contingency tables were established for each variable (e.g. male versus female) and, where logical, cells were combined. For example, the greatest proportion of respondents in both the MNH group and the CMRV group held master's degrees. In both groups the number of bachelors and doctoral degrees was correspondingly small. Therefore, a 2 x 2 contingency table was established; MNH versus CMRV x Masters versus Bachelors + Doctors. In other instances, a median test was used (e.g. on age, years of business experience) to establish the 2 x 2 contingency tables. Where appropriate, Yates correction for continuity was employed.

No significant differences were found between the MNH respondents (Massachusetts plus New Hampshire) and the CMRV respondents (Connecticut, Maine, Rhode Island and Vermont responses combined) on proportion of male versus female respondents (chi square = 1.41, NS), on degree levels (masters degrees versus all others) (chi square = .029, NS); on age of respondents (chi square = .033, NS); on years of business experience (chi square = .341, NS); on years of teaching experience (chi square = .0007, NS) and on number of years experience in career education (chi square = .883, NS).

On the basis of these analyses, one can conclude that the respondents do not differ on these important demographic variables proportionately by sample return size. It is therefore appropriate to study the responses as a total group. The balance of the data reported herein, accordingly, did not differentiate responses by state.

Sex, Age and Educational Level of Respondents

Table 1 reports the sex, age and educational levels of the total sample.

Table 1

Distribution of Respondents by
Sex, Age and Educational Level

N=76

SEX

53 Males 23 Females

DEGREE LEVELS

9 Bachelors degrees

58 Masters degrees

9 Doctoral degrees

AGE RANGE

Range, Years	No. Respondents
25	7
26-35	34
36-45	19
46-55	12
56-65	4

Approximately 70% of the respondents were males. This ratio of males to females is not unusual in the field of vocational/career education or in school

administration (a clinical hunch - no hard data available). About 86% of the respondents are in the age range 26 to 55. The largest subset is in the age group 26-35 (44%). The largest proportion of the total group was ages 26-55. This appears to be representative of the general U.S.A. working population. The bulk of the respondents hold masters degrees. Since a masters degree is de rigueur to permanent certification in many states, this clustering does not seem unreasonable.

On the variables of sex, age and educational level, the population of respondents appears to be quite normal, with proportions in each category as would have been predicted.

Distribution of Respondents by Years of Experience in Business, Teaching and Career Education

Tables 2, 3 and 4 report the distribution of respondents by number of years in business, number of years of teaching experience and number of years in career education.

Table 2

Distribution of Respondents by Years of Business Experience

N = 76

Years of Experience	Number of Responses
0-2	31
3-5	26
6-10	14
11-15	5
Total	76

Table 3

Distribution of Respondents
by Years of Teaching Experience

N = 76

Years of Experience	Number of Responses
2	11
3-5	12
6-10	20
11-15	15
16-20	14
21+	4
Total	76

Table 4

Distribution of Respondents by
Years of Experience in Career Education

N = 76

Years of Experience	Number of Responses
1	19
2-3	11
4-5	21
5+	25
Total	76

Seventy five per cent (75%) of the respondents have had from 0 to 5 years of experience in business. Nearly 41% have had less than two years of business experience, and 25% have had more than five years of business experience. While this survey did not try to determine "quality" of business experience, (ignoring the implied assumption that all business experience is equivalent), findings suggest that a fairly substantial proportion (41%) of the professional personnel involved in career education for the handicapped have had little or no business experience. Moreover, most persons entering the business world begin in entry level positions and remain in them for at least two or three years. Ergo, about forty-one per cent of this group have probably not held positions in business or industry with any substantial amount of responsibility; therefore, they have not had the opportunity to view a business organization from the perspective of an overall management plan, organizational structures, systems or personnel objectives.

Respondents were fairly evenly divided in proportion assigned to the various categories indicating years of teaching experience. The largest single group (26%) was comprised of those with from six to ten years of teaching experience.

An encouraging sign was the finding that approximately 61% of the respondents have had over four years of experience in career education with only 25% having one or fewer years of experience.

Distribution of Respondents by Job Titles

Table 5 reports the distribution of respondents by job titles. Some respondents indicated more than one job title. All multiple responses were tabulated so that totals are larger than the number of respondents.

Table 5

Distribution of Respondents
by Job Titles

N = 76*

Job Title	No. Responses
Special Education Teacher	12
Vocational Teacher	4
Counselor	4
Practical Arts Teacher	1
Work Study Coordinator	9
Career Education Director Consultant/Coordinator	14
Vocational Director	11
Special Education Director	8
Principal	1
Superintendent	4
State Department Official	10
Vocational Rehabilitation	6
Teacher (Other: includes teacher educators, business teachers, etc.)	7
TOTAL RESPONSES .	91

*Note: All reponses were recorded; some respondents checked more than one job title

The distribution of respondents by job title suggests that a broad spectrum of professionals are concerned with career education for the handicapped. The tendency for many respondents to indicate more than one job title may indicate that many persons involved in career education do so as an add-on part of their regular duties. Our experience in training career education directors at Boston University suggests that it is not unusual for the "career education" person to simultaneously hold an additional job title with its accompanying responsibilities and duties. From the data collected here, however, one can only hypothesize.

III. ANALYSIS AND DISCUSSION OF RESPONSES TO CURRICULUM AND INSTRUCTION QUESTIONS

Table 6 reports the frequencies of "Yes," "No" and "N/A" responses to questions 1-14; 17-18; 20-23. Responses to questions 15, 16, 19 and 23 are reported in the text or in tables which follow this section. For purposes of analysis a chi square of proportion (50-50 hypothesis) was used to establish level of significance of responses to each item. The "No" and "N/A" cells were combined and compared to the frequency of "Yes" responses for each item. All chi squares were significant at the .05 level of significance, or higher, for all items except items 2, 3, 6, 8 and 21. The following conclusions may be drawn from this analysis:

1. A larger proportion of the respondents significantly ($p=.05$ or higher) reported that their agency offered career education for the handicapped, has an administrator responsible for career education, has career education curriculum materials available for the mildly handicapped, has regularly scheduled field trips to industry for handicapped students, has a reasonable variety of vocational programs for handicapped students at the senior high level, provides work-study (cooperative education) experiences for handicapped students as an integral part of curriculum as well as job placement for graduates, has "mainstreamed" its handicapped students, has knowledgable career education personnel and has a career education center.

2. A significantly larger proportion of the respondents report that the results of program evaluations (if any) are not available in published form, that their agency has not appointed an advisory committee for career education curriculum development and that they do not have competency-based career education programs for the handicapped.

3. Respondents were equally likely to report "Yes" or "No + NA" to the questions concerned with possessing a school board policy statement, having general or specific career education objectives at all levels, regular utilization of

community resources, having evaluated its career education program, and having career education curriculum guides for the handicapped available to them from state education agencies.

Table 6

CURRICULUM AND INSTRUCTION

Frequency of Responses to Questions Concerned with Curriculum and Instruction Programs in Career Education for Handicapped Students. (Items 1-14; 17-18; 20-23.)

Question	No. of Responses		
	Yes	No	Not Applicable
1. Does the agency offer career education for the handicapped?	60	11	5
*2. Has the school board adopted an official policy statement on career education?	35	28	13
*3. Does the agency have both general goals and specific objectives related to career education for each level of the system?	41	27	8
4. Does the agency have an administrator responsible for career education?	51	21	4
5. Does the agency have available career education curriculum materials appropriate to the education of the mildly handicapped?	53	18	5
*6. Does the agency regularly utilize resource persons from the community in career education activities for the handicapped?	41	29	6
7. Are handicapped students at every level regularly (systematically) scheduled for field-trips to business-industry-labor-professional community for career education purposes?	24	40	12
*8. Has the agency systematically evaluated its career education program?	32	33	11

*Note: All chi squares significant at p=.05 or higher except for items 2, 3, 6, 8, 21.

Table 6 (continued)

CURRICULUM AND INSTRUCTION

Frequency of Responses to Questions Concerned with Curriculum and Instruction Programs in Career Education for Handicapped Students. (Items 1-14; 17-18; 20-23.)

Question		No. of Responses Yes	No	Not Applicable
9.	Are the results of the above valuation available in published form?	17	39	20
10.	Has the agency appointed an advisory committee for career education curriculum development?	26	39	11
11.	Do senior high school handicapped students have a reasonable variety of vocational programs from which to choose?	49	14	13
12.	Does the agency provide cooperative education (work experience) through local business and industries as an integral component of instructional activity for the handicapped?	53	14	9
13.	Does the agency provide job placement programs for handicapped graduates?	48	24	4
14.	Is published follow-up data available on work and educational experiences of the majority of handicapped graduates?	9	55	12
17.	Does the agency have a competency-based career education program for the handicapped?	17	52	7
18.	Does the agency have a career education program for the handicapped that is integrated (mainstreamed) with other school programs, e.g., subject areas, vocational education.	51	13	12
20.	Are personnel working with the handicapped knowledgeable about the mission and concept of career education?	62	8	6
*21	Are curriculum guides in career education for the handicapped available to the agency from the state education agency?	37	27	12
22.	Does the agency have a career education center?	47	25	4

*Note: All chi squares significant at p=.05 or higher except for items 2, 3, 6, 8, 21.

Responses to question 15, Curriculum and Instruction section are reported in Table 7, below:

Table 7

CURRICULUM AND INSTRUCTION

Frequency of Respondents' Estimates of Percentage of Students Enrolled in Career Education Programs by Level and Handicapped or Regular Student

LEVEL OF PROGRAM	PERCENTAGE RANGES									
	1-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100
1. Elementary school										
a. Handicapped	3	1	-	1	1	1	1	1	2	4
b. Regular	6	1	-	1	1	-	1	2	1	4
2. Junior/middle school										
a. Handicapped	2	1	2	1	3	2	2	3	4	6
b. Regular	4	2	4	1	3	-	-	4	2	8
3. Senior high school										
a. Handicapped	11	3	4	-	3	1	2	4	3	11
b. Regular	6	8	3	5	4	6	-	2	2	5
4. Adult										
a. Handicapped	4	-	-	-	-	-	-	-	1	1
b. Regular	4	1	-	-	1	-	-	-	-	2
Totals	40	17	13	9	16	10	6	16	15	41

Table 7 data should be interpreted with caution. Twenty-nine per cent of the respondents to the questionnaire did not respond to this item. Only twelve (12) cases actually responded to all items. Frequency counts in each percentage range, then, are exceptionally variable from respondent to respondent. A chi square comparison of the total responses in each item found significant differences in responses (chi square = 73.05, df=9, p=.001). An inspection of the frequency counts shows that there is a trend for the programs of those responding to include either less than 10% of their students or over 90% of their students (with a fairly even distribution of the remainder of the responses in the range of 11% to 90%).

Table 8, below, reports the responses to questions 16 and 17:

Table 8

CURRICULUM AND INSTRUCTION

Number of Respondents Reported Competent, Trained Personnel in Career Education by Level and Type of Programs Offered by Level

1. Competent, Trained Personnel?

Level	Number of Responses
K-6	15
7-12	54
Post-secondary	12

2. Programs Presently Available?

Type of Program	Number of Responses
Segregated, K-6	14
Segregated, 7-12	31
Integrated, K-6	30
Integrated, 7-12	48

A clear majority of the respondents indicated that their program had competent, trained personnel in career education at grades 7-12 levels. This is not unexpected if one hypothesizes that many of the respondents would consider vocational or occupational training programs as synonymous with "career education." There were 634 public schools in the six New England states who reported secondary occupational education curriculums in 1971 (See USOE Directory of Secondary Schools with Occupational Curriculums, 1971).

Forty-five respondents reported segregated (K-12) programs for the handicapped while 78 reported integrated programs. Data should be interpreted with caution since many respondents checked more than two responses (N=76 respondents; N=123 items checked). A chi square analysis of actual responses shows a significant trend for programs to be reported as integrated (chi square = 8.85, p=.01).

Table 9 reports the type of computer guidance systems reported by those responding.

Table 9

CURRICULUM AND INSTRUCTION

Frequency of Responses to Item 23, Dominant Computer Guidance System for Handicapped

	Yes	No	N/A
23. Does the agency have available any of the following dominant computer involved career guidance systems to assist the handicapped in their career development?			
a. The Guidance Information System (GIS)	17	6	6
b. The Oregon Information Access System (OIAS)	5	11	12
c. The Computerized Vocational Information System (CVIS)	4	13	11
d. The Education and Career Exploration System (ECES)	4	11	13
e. The System for Interactive Guidance and Information (SIGI)	0	13	15
f. Project Discover	7	11	11
	82	65	68

The data in Table 9 should be interpreted with caution. Many respondents checked more than one item (yes and/or no) while 29 of the 76 respondents to the questionnaire did not respond to this item at all. There were significantly fewer affirmative answers to the availability of various computer systems than negative or not applicable ones (chi square = 12.09, p=.01). Apparently, few school systems or other career education programs have these systems extant.

IV. ANALYSIS OF SCOPE AND BREADTH OF CAREER EDUCATION

Method/Activity Used for Involving Mildly Handicapped Students in Career Education.

Table 10 reports the frequencies of the five ratings assigned to each of the twenty questions in this section.

Table 10

SCOPE AND BREADTH OF CAREER EDUCATION

Method/Activity for Involving Handicapped Students in Career Education

(N=71) *

Methods and Activities to:	Almost Always 1	Regularly 2	Sometimes 3	Seldom 4	Never 5
1. Help students develop an understanding of themselves and others	20	35	12	3	1
2. Help students develop positive attitudes toward themselves, school and work.	25	30	12	3	1
3. Help students relate what they learn to occupations.	15	25	22	6	3
4. Help students learn to appreciate the personal, social and economic significance of work.	15	20	30	4	2
5. Help students develop an appreciation for the importance of all types and levels of work.	11	26	22	10	2

Table 10

SCOPE AND BREADTH OF CAREER EDUCATION

Method/Activity for Involving Handicapped Students in Career Education (N=71)*

Methods and Activities to:	Almost Always 1	Regularly 2	Sometimes 3	Seldom 4	Never 5
6. Help students develop an appreciation for the intrinsic values of work.	8	25	23	13	2
7. Help students assess their interests, aptitudes, personal traits, personal needs, and personal values, as an aid to career planning	15	30	19	6	1
8. Help students become aware of the many occupational options open to them.	10	35	22	3	1
9. Help students consider how their career choice may affect the kind of life they will lead.	10	24	27	9	1
10. Provide opportunities for students to test their interests and aptitudes through paid or unpaid, actual or simulated work experience	17	20	18	11	5
11. Help students develop skills in gathering information as an aid to career planning.	8	22	25	15	1
12. Help students become aware of employment trends.	6	14	26	20	5
13. Help students become aware of employer expectations.	16	25	23	6	1
14. Prepare all youth for a "next step" when they leave our public schools, in either immediate employment or continuing education.	16	24	21	6	4
15. Help students learn how to get, hold, and advance on a job.	13	30	22	5	1
16. Help students learn how to qualify for entrance and succeed in post-secondary school.	6	22	23	13	7

Table 10

SCOPE AND BREADTH OF CAREER EDUCATION

Method/Activity for Involving Handicapped Students in Career Education (N=71)*

Methods and Activities to:	Almost Always 1	Regularly 2	Sometimes 3	Seldom 4	Never 5
17. Provide placement services for students upon exit from high school.	14	11	13	20	13
18. Involve parents in career education activities.	7	12	20	21	11
19. Involve persons from area business and industry to help improve courses.	7	23	22	12	7
20. Collect and analyze follow-up data on graduates to help plan programs that are congruent with student and community needs.	7	16	18	12	18
TOTALS	246	469	420	198	87

* 5 respondents did not complete this section.

No attempt was made to individually analyze the responses to the 20 individual items in Table 10. One can make some inferences, however, by close inspection of the frequency counts in each cell by comparing each to an expected frequency of 14.2 Thus one can draw the following tentative conclusions:

1. The majority of the respondents ALMOST ALWAYS/REGULARLY use methods and activities to help students develop an understanding of self and to help them develop positive attitudes.

2. The majority of the respondents REGULARLY/SOMETIMES use methods and activities to help students relate learnings to occupations, learn to appreciate economic significance of work, learn levels and types of work, develop appreciation of intrnisic values of work, assess their interests, aptitudes, etc. as aid to career planning, become aware of occupational options, consider implications of career choice on lifestyle, to have work experience opportunities, develop data collection skills for career planning, become aware of employers' expectations, learn how to get, keep and advance in a job, and learn how to qualify for entrance and success in post-secondary programs. The majority also REGULARLY/SOMETIMES use business and industry persons to help improve their courses.

3. The majority of respondents were about equally divided on the frequency in which they provide placement services for students, involve parents in career education activities and collect and analyze data on graduates (follow-up).

Using procedures suggested by Isaac (1974, p. 104) individual ratings for all items were summed for purposes of analysis. Chi square analysis indicated that a significant number of the items were rated as REGULARLY or SOMETIMES used ($p = .001$).

Table 11 reports the responses to items 21, 22 and 23 which were concerned with school board policy, and published goals on career education as well as with the curriculum infusion depth.

Table 11

SCOPE AND BREADTH OF CAREER EDUCATION

School Board Policy, Published Goals and Depth of Curriculum Infusion in Career Education

(N= 73)*

The agencies/districts I work in and/or am familiar with have:	YES	NO	Significance p **
21. A policy statement from the Board of Education supporting career education.	40	33	NS
22. Career education goals identified in written form.	39	34	NS
23. Career education as a curricular thrust which permeates the entire program.	33	40	NS

*Note: three respondents did not complete this item

**Significance of chi square analysis

Individual chi square analyses of each item in Table 11 were not significant. It can be concluded, therefore, that the respondents were about equally divided on whether or not their school board had a policy statement on career education, possessed written goals on career education and had a career education curriculum thrust which permeated the entire program.

Since the latest USOE figures estimate that about 50% of the public schools in the U.S.A. have begun to implement career education, the pattern of responses to items 21 and 22 is not surprising. However, since the USOE estimates that only about 3% of all schools have a comprehensive K-12 curriculum infusion career education model, the reason for the pattern of responses to item 23 is unclear.

V. STUDENT INFORMATION RELATED TO CAREER EDUCATION

General Information

Table 12 reports the responses to questions on general student information related to career education for items 1, 3-13. Individual chi square analyses found that on nine of the twelve items, respondents were significantly more likely to respond "yes" than "No" ($p = .01$ or $p = .001$). One can draw the following inferences on the basis of these analyses.

1. Respondents were about equally divided on whether or not their secondary programs were competency based, in the opinion that teaching mildly handicapped to cope with societal stress is more important than teaching job skills, and whether or not reading at the fourth grade level is a critical competency for community entrance.

2. On all the other questions, the majority of the respondents were significantly more affirmative in their agreement that (1) students are integrated, (2) vocational training is secondary or post-secondary, (3) job placement is a part of career education, (4) occupational training is related to entry level jobs, (5) job failure is related to interpersonal skills rather than vocational skills, (6) mildly handicapped students participate in community-based work experiences, (7) parents participate in the educational plan, (8) vocational assessment instruments are used in placement, and (9) individualized written plans for each student in the career education program are extant.

Table 12

STUDENT INFORMATION RELATED TO CAREER EDUCATION

Frequency of Responses to Items 1. 3-13
(N=73)*

Item	Frequency YES	NO	P**
1. Are mildly handicapped students involved in integrated Career Education programs?	62	11	.001
3. In my state, most vocational training for the mildly handicapped students takes place at the senior high school or post high school level	64	8	.001
4. Is job placement a part of the Career Education program for the mildly handicapped?	52	21	.001
5. Is entry level employment of your mildly handicapped directly related to the occupational activities provided by your agency?	54	19	.001
6. Those who experience job failure among the mildly handicapped do so for interpersonal reasons and not lack of specific work skills.	48	25	.01
7. Teaching the mildly handicapped to cope with and adapt to societal stress is more important than teaching the student specific job skills.	44	29	NS
8. Is your secondary instructiona program for the mildly handicapped competency based as reflected in student progress reports?	34	39	NS
9. Is reading at a minimal level of 4th grade a critical competency among the mildly handicapped who enter the community with entry level job skills?	39	34	NS
10. Do mildly handicapped students participate in community based work experiences?	58	15	.001
11. Do parents participate in the educational plan of their youngster?	62	11	.001
12. Are vocational assessment instruments used by your agency to place the mildly handicapped in the job preparation phase of Career Education?	48	25	.01
13. Is there a written individualized plan for each mildly handicapped youngster enrolled in Career Education activities?	50	23	.01

*Three respondents did not complete this item.

**Significance level of x^2 analysis.

Table 13 reports the responses to question 2 of the student information section.

Table 13

STUDENT INFORMATION RELATED TO CAREER EDUCATION

Vocational Program Placement Procedures

(N=76)*

2. How are handicapped students placed in vocational programs?

Procedure	No Responses
Team Referral	59
Student Request	38
Administrative Decision	29
Parent Request	31

*Note: some respondents gave more than one response.

Chi square analysis of responses found that team referral method was significantly the more frequently used procedure (chi square = 14.39, p = .01). No attempt was made to test for combinations of methods since tabulation procedures were designed to yield combinations only.

Readiness for Job Market?

Table 14 reports the number of responses to question 14. Question 14 attempted to determine the percentage of students in each program who would be ready for the competitive job market in any given year.

Table 14

STUDENT INFORMATION RELATED TO CAREER EDUCATION

Question 14: Readiness for Job Market?

(N=61)*

14. What per cent of your mildly handicapped will be ready to enter the competitive job market with salable skills in any given year?

Per Cent Estimated to Enter Job Market with Skills

0-25	26-50	51-75	76-100	Unknown
12	10	10	5	24

*Note: 15 respondents did complete this item.

Data from this table should be interpreted with caution since 15 (20%) of the sample did not respond. Chi square analysis found significantly more respondents checking "Unknown" than the other responses (chi square - 16.456, p = .01).

Sex Ratios

Table 15 reports the ratios of boys to girls enrolled in the career education programs for mildly handicapped students. Data from this table should be interpreted with caution since 14 persons in the sample did not respond. Chi square analysis found that the respondents were about equally divided on the various ratios. (Chi square = 2.277, p = NS).

Table 15

STUDENT INFORMATION RELATED TO CAREER EDUCATION

Question 15: Ratio of Boys/Girls in Career Education

(N=62)*

15. What is the ratio of boys to girls in your career education program for the mildly handicapped?

Estimated Ratio

5 to 1	4 to 1	3 to 1	2 to 1	1 to 1
6	11	16	13	16

*Note: 14 respondents did not complete this item.

Congruency of School Objectives with Broad Student Objectives

Table 16 reports the results of an attempt to determine the congruency of school and/or state educational objectives with broad, career education student objectives. Chi square analyses of the responses to individual items found that the majority of the respondents significantly were affirmative in their responses to each item. One can conclude, then, that the majority of the respondents indcated that their school or state objectives were congruent with the broad student objectives of providing students with a program which would help them to develop an understanding of self, acquire decision-making skills, understand the relationship between work and lifestyle, acquire appreciation of interrelatedness of occupations and the variety of career options, develop appreciation for the dignity of work, acquire responsible behaviors, develop interpersonal skills and develop an internal locus of control.

Table 16

STUDENT INFORMATION RELATED TO CAREER EDUCATION

Congruency of Broad Student Objectives
With School or State Objectives (Question 16)

(N=74)*

16. Below is a list of broad student objectives for a comprehensive K-12 Career Education Program. If you feel the objective is congruent with your school or state's objectives, check "Yes." If not, check "No."

	ITEM: All mildly handicapped students should receive an educational program K-12 which will help them to:	RESPONSES Yes	No	Significance p**
a.	Develop an understanding and awareness of self.	66	8	.001
b.	Acquire decision-making skills, including an understanding of the process, goal setting, risk-taking, values clarification.	63	11	.001
c.	Understand the relationship between the work one does and one's own lifestyle.	58	16	.001
d.	Acquire an appreciation of the interrelatedness of occupations and the immense variety of career opportunities.	62	12	.001
e.	Develop an appreciation for dignity that work offers the individual.	64	10	.001
f.	Acquire knowledge and understanding of the privileges, rights and responsibilities of each individual on the job, at home and in the community.	64	10	.001
g.	Develop an understanding between responsibilities and rewards both at work and at play.	68	6	.001
h.	Develop interpersonal skills.	68	6	.001

*Note: 2 respondents did not complete this item.
**Note: p = significance of chi square analysis.

Table 17 reports the number of respondents who both circled "No" and then asterisked (*) the "No" item on the questions listed in Table 16. Respondents were asked (Question 16) to indicate by the asterisk that even though the specific goal was not congruent with present school or state objectives, they felt it should be.

Table 17

STUDENT INFORMATION RELATED TO CAREER EDUCATION

Broad Student Objectives Not Now Congruent With School or State Objectives But Should Be

BROAD STUDENT OBJECTIVES	No. of Respondents Indicating Not Now a State or School Objective But Should Be
a. Develop an understanding and awareness of self.	8
b. Acquire decision-making skills, including an understanding of the process, goal setting, risk-taking, values clarification.	8
c. Understand the relationship between the work one does and one's own lifestyle.	13
d. Acquire an appreciation of the interrelatedness of occupations and the immense variety of career opportunities.	11
e. Develop an appreciation for dignity that work offers the individual.	7
f. Acquire knowledge and understanding of the privileges, rights and responsibilities of each individual on the job, at home and in the community.	8
g. Develop an understanding between responsibilities and rewards both at work and at play.	4
h. Develop interpersonal skills.	5

Sixty-four responses to the 8 items were both circled "No" to the above objectives, and asterisked (*).

A chi square analysis of the pattern of responses found no significant variances. That is, the distribution of responses was not significant.

VI FUTURE NEEDS

Respondents were asked to rank order eleven items which they felt needed to be implemented in their schools relevant to career education for handicapped students. Table 18 on the next page reports the mean ranks and standard deviations for each item. Six of the items received a mean rank of from 5.10 to 5.70. Only one item was ranked below 5 ($\bar{X}$ rank = 4.71). Two items received mean ranks between 7.57 and 7.82. Two received mean ranks of 6.18. No other statistical analyses were performed. The most important item (i.e., ranked most important) for this group of respondents (which needs to be implemented) was "to identify skills for, and train personnel in working with, handicapped persons in career education and vocational settings." This finding is congruent with the recent interest in the dual specialization in career education and special education at Boston University (Gardner and Warren, in press) and with federal government interest in funding vocational education projects designed to develop procedures for training and assisting resource teachers in vocational schools (Gardner & Kurtz, 1977a; 1977b). It is also not surprising (clinical experience of author) that the mean ranks for the items concerned with evaluation and research (items 3 and 10) were rated lowest.

Table 18

FUTURE NEEDS

(N=67)*

Please rank the following items from 1 to 11 with Number 1 being the most important.

	ITEMS	MEAN RANK	STANDARD DEVIATION
1.	Increase collaboration with business, industry, labor, government and other community organizations	5.10	2.74
2.	Identify special skills for and train personnel in working with handicapped persons in career and vocational education settings.	4.71	2.83
3.	Evaluate career education programs for handicapped persons more effectively.	7.82	3.32
4.	Develop special techniques for infusing career education concepts into K-Life career education programs for the handicapped.	5.24	2.82
5.	Improve curriculum materials used by special educators for career education of handicapped persons.	6.18	2.98
6.	Provide comprehensive placement, career counseling, and follow-up services for handicapped persons.	5.70	3.23
7.	Develop alternative methods for helping handicapped persons make the transition from school to work more effectively.	5.54	2.98
8.	Increase the variety and number of opportunities for handicapped students to explore the world of work in the community.	5.30	3.04
9.	Develop and expand both secondary and post-secondary career education programs for the handicapped with a supervised work experience component as a major thrust.	5.45	3.23
10.	Improve the efficiency and effectiveness of the teaching-learning process by systematically researching and applying our extensive, modern educational technology in the classroom and the school system.	7.57	3.43
11.	Require every teacher to complete a specified program (in-service, pre-service) in career education.	6.18	3.97

*Note: 9 subjects did not respond to this item.

V. RECOMMENDATIONS BY SECTIONS

1. Demographics

1.1 Since the sample population was selected on the basis of probable interest in the topic, it is reasonable to assume that the respondents have a high degree of involvement in career education for the mildly handicapped. If one can assume that this sample of respondents represents the population of professionals in New England in this category, then results suggest that there are more males than females working in the field. Therefore, the following recommendation seems in order.

1.1 RECOMMENDATION:

TEACHER TRAINING PROGRAMS, BOTH PRE-SERVICE AND GRADUATE, SHOULD ACTIVELY INCREASE EFFORTS TO RECRUIT FEMALES TO WORK IN CAREER EDUCATION FOR MILDLY HANDICAPPED STUDENTS.

In this sample, 75% of the respondents had less than five years of business experience; 41% had from zero to less than two years of business experience. (Our own clinical hunch is that the 41% had less than one year, but data were not so collected. If one assumes that most of the business experience was probably entry-level (0-2 years) experience, then those with some experience (41%) probably have an unclear perspective of our business system. The following recommendation seems logical.

1.2 RECOMMENDATION:

EFFORTS NEED TO BE DEVELOPED TO MAKE IT POSSIBLE FOR TEACHERS TO ACQUIRE IN-DEPTH EXPERIENCE AND KNOWLEDGE OF THE REAL WORLD OF WORK BEFORE WORKING IN CAREER EDUCATION PROGRAMS. This may take a variety of forms, including short or long-term sabbaticals, in-service training through industry, summer employment, etc.

A great many of the respondents indicated that in addition to their function in "career education," they held other job titles, duties and responsibilities

simultaneously. While we presently have no data to support the hypothesis, our clinical experience has been that many "career education coordinators" are also directors of related programs. The following recommendation seems in order:

1.3 RECOMMENDATION:

EFFORTS MUST BE MADE TO ASSIST PUBLIC SCHOOLS AND OTHER AGENCIES IN ACQUIRING FUNDS TO BUDGET FULL-TIME CAREER EDUCATION SPECIALISTS.

2. Curriculum and Instruction

A significant proportion of the respondents report that they do not have published program evaluations and approximately half report that programs have not been evaluated. The following recommendation seems logical:

2.1 RECOMMENDATION:

FEDERAL AND STATE AGENCIES, POSSIBLY WITH UNIVERSITY SUPPORT STAFF, SHOULD CONTINUE EFFORTS TO ASSIST PROGRAMS (LEA'S) WHICH ARE PRIMARILY CONCERNED WITH THE DELIVERY OF SERVICES TO STUDENTS IN DEVELOPING, IMPLEMENTING, ANALYZING AND REPORTING PROGRAM EVALUATIONS.

Findings indicate that a significant proportion of the respondents do not use advisory committees in curriculum development activities. The following suggestion seems in order.

2.2 RECOMMENDATION:

EFFORTS SHOULD BE MADE TO ENCOURAGE SCHOOLS TO INCREASE THEIR USE OF ADVISORY COMMITTEES IN CAREER EDUCATION CURRICULUM DEVELOPMENT.

The majority indicated that they are not offering competency-based instructional programs. Because of the obvious advantages of competency-based instruction in career education (see Resnick & Carmody, 1977) and the apparent lack of its implementation in this sample, the following recommendation is made.

2.3 RECOMMENDATION:

FEDERAL AND STATE AGENCIES SHOULD DEVELOP PILOT PROJECTS FOR DEVELOPING STRATEGIES FOR IMPLEMENTING AND EVALUATING COMPETENCY-BASED CAREER EDUCATION PROGRAMS FOR MILDLY HANDICAPPED STUDENTS.

Respondents were about equally divided in their reporting of the availability of a school board policy on career education, on having objectives for career education at all levels, on having state curriculum guides available, and on regularly using community resources. The following recommendations are therefore offered.

2.4 RECOMMENDATION:

MODEL SCHOOL BOARD POLICY STATEMENTS ON CAREER EDUCATION AND CAREER EDUCATION FOR HANDICAPPED SHOULD BE DEVELOPED BY FEDERAL AND STATE AGENCIES FOR CONSIDERATION FOR ADOPTION BY LOCAL EDUCATION AGENCIES. A PROGRAM OF DISSEMINATION SHOULD ACCOMPANY THIS AND OTHER EFFORTS.

2.5 RECOMMENDATION:

FEDERAL AND STATE AGENCIES SHOULD EXPAND THEIR EFFORTS TO ENCOURAGE LOCAL SCHOOLS TO DEVELOP SPECIFIC AND GENERAL OBJECTIVES IN CAREER EDUCATION FOR ALL STUDENTS AT ALL LEVELS.

2.6 RECOMMENDATION:

STATE AND FEDERAL AGENCIES SHOULD INCREASE EFFORTS TO ENCOURAGE LOCAL SCHOOLS TO UTILIZE COMMUNITY RESOURCES IN THEIR CAREER EDUCATION PROGRAMS.

2.7 RECOMMENDATION:

STATE AGENCIES SHOULD BE ENCOURAGED TO INCREASE THE QUANTITY AND QUALITY OF CURRICULUM GUIDES AVAILABLE ON THE TOPIC IN ORDER TO BETTER SERVICE THE LOCAL SCHOOLS.

A significant majority of the respondents reported having sufficient trained career education personnel at the 7-12 level only. The following recommendation appears warranted.

2.8 RECOMMENDATION:

REACHER TRAINING INSTITUTIONS SHOULD BE ENCOURAGED TO RECRUIT AND TRAIN MORE QUALIFIED PERSONNEL TO WORK IN CAREER EDUCATION FOR THE HANDICAPPED AT THE POST-SECONDARY AND ELEMENTARY/MIDDLE SCHOOL LEVELS.

Findings suggest that few of the respondent's programs had computer guidance systems to assist the mildly handicapped in their career development. The following seems in order.

2.9 RECOMMENDATION:

FEDERAL AND STATE AGENCIES SHOULD INCREASE EFFORTS TO ENCOURAGE (AND POSSIBLY FUND) THE USE OF COMPUTER GUIDANCE SYSTEMS IN LOCAL AGENCIES.

3. Scope and Breadth of Career Education

3.1 Method/Activity Recommendations

Basing recommendations on those areas in this section where respondents reported less frequent activity, the following recommendations are offered.

3.1a RECOMMENDATION:

STATE AND FEDERAL AGENCIES SHOULD INCREASE EFFORTS TO ASSIST SCHOOLS IN DEVELOPING ADEQUATE PLACEMENT SERVICES FOR MILDLY HANDICAPPED GRADUATES.

3.1b RECOMMENDATION:

SCHOOL SYSTEMS SHOULD BE ENCOURAGED (AND ASSISTED IF NECESSARY) TO DEVELOP MORE EFFICIENT PROCEDURES FOR INVOLVING PARENTS IN THE CAREER EDUCATION PROCESS.

3.1c RECOMMENDATION

SCHOOL SYSTEMS SHOULD BE ENCOURAGED (AND ASSISTED BY STATE & FEDERAL AGENCIES IF NECESSARY) TO DEVELOP EFFICIENT PROCEDURES FOR COLLECTING, ANALYZING AND SYNTHESIZING APPROPRIATE DATA ON GRADUATES AND APPLYING SUCH INFORMATION TO PROGRAM REFINEMENT AND DEVELOPMENT.

The respondents were about equally divided in indicating the presence of a policy statement by the school board on career education. This finding is consistent

with the finding in the previous section and, therefore, Recommendation No. 2.4 applies here also. In terms of the finding on presence or absence of written objectives, the group was about evenly divided. Recommendation No. 2.5 from the previous section applies here also.

Findings suggest that few of the respondents are working in programs where career education is comprehensive, that is, infused throughout the entire curriculum. The following recommendation probably applies to almost all of the schools since less than 3% nationally are known to have comprehensive programs.

3.2 RECOMMENDATION:

IF CAREER EDUCATION IS GOING TO BE INFUSED THROUGHOUT THE ENTIRE CURRICULUM OF MOST PUBLIC SCHOOLS, THEN FEDERAL AND STATE AGENCIES MUST INCREASE EFFORTS TO MAKE SUCH COMPREHENSIVE CHANGES IN OUR EDUCATIONAL SYSTEM FINANCIALLY POSSIBLE.

4. Student Information Related to Career Education

Findings suggest that competency-based instruction in secondary programs is not available to the majority of the students in the programs represented by this sampling. The following recommendation is critical since competency-based instruction is clearly advantageous in providing vocational skill training for secondary mildly handicapped students.

4.1 RECOMMENDATION:

LOCAL SCHOOL DISTRICTS MUST BE PROVIDED WITH THE APPROPRIATE KNOWLEDGE, SKILLS AND MATERIALS TO IMPLEMENT COMPETENCEY-BASED INSTRUCTIONAL PROGRAMS FOR SECONDARY MILDLY HANDICAPPED STUDENTS IN CAREER EDUCATION PROGRAMS. STATE AND FEDERAL AGENCIES NEED TO INCREASE EFFORTS IN THIS DIRECTION.

The respondents were about equally divided in their opinion about whether or not literacy (fourth grade reading?) is important to community entrance. The following seems in order.

4.2 RECOMMENDATION

EFFORTS SHOULD BE MADE TO FURTHER INVESTIGATE THE RELATIONSHIP BETWEEN MINIMUM READING LEVELS, ECONOMIC AND COMMUNITY ADJUSTMENT, AND JOB SUCCESS. (See: Gardner & Warren, 1977.)

Respondents were about equally divided in their opinions on whether or not teaching students to cope with the stresses of our society is more or less important than teaching job skills. There is considerable research which shows that most persons fail on the job because of factors other than ability to perform the specific job skill. These factors can be described as "personality variables," that is, how the person copes. In this context, then, the following recommendation is offered.

4.3 RECOMMENDATION

PROFESSIONALS IN THE FIELD OF CAREER EDUCATION NEED TO UNDERSTAND THE RELATIONSHIP BETWEEN PERSONALITY VARIABLES AND JOB FAILURE OR SUCCESS. EFFORTS SHOULD BE MADE TO EDUCATE THE MANY VOCATIONAL EDUCATORS WHO STRESS VOCATIONAL SKILLS TO THE EXCLUSION OF OTHER IMPORTANT WORK ADJUSTMENT FACTORS.

The data in this survey suggest that there are a variety of referral methods extant, the most predominant being "team referral" for placing students in vocational training programs. A recent study indicated that it is difficult to predict training success in vocational training programs for mildly handicapped secondary students on the basis of interest tests, exploration programs and a variety of other indices (see Warren & Gardner, 1977). The following recommendation is therefore rendered.

4.4 RECOMMENDATION:

EFFORTS SHOULD BE INCREASED TO DEVELOP A VARIETY OF EFFICIENT AND EFFECTIVE PROCEDURES FOR INCREASING THE ABILITY OF SCHOOLS TO PREDICT VOCATIONAL TRAINING SUCCESS.

A significant number of respondents did not know the percentage of students in their programs who would be ready to enter the job market in any given year with salable skills. When one views this finding in the context of the background of the sample selected (that is, interested and involved in career education), the finding takes on added significance. The following recommendation is therefore offered.

4.5 RECOMMENDATION:

INCREASED ATTENTION SHOULD BE GIVEN TO ESTABLISHING INDIVIDUAL OBJECTIVES FOR ALL STUDENTS ENROLLED IN THESE PROGRAMS WHICH WILL RESULT IN THE ATTAINMENT OF SALABLE JOB SKILLS FOR EACH. TEACHERS NEED TO BECOME AWARE OF THE OVERRIDING IMPORTANCE OF SUCH A GOAL FOR EACH STUDENT!

5. Future Needs

Respondents were asked to rank order eleven items which they felt were future needs in the development of career education programs and services for mildly handicapped students. The highest priority item (mean rank = 4.71) was concerned with identifying the special skills of the field and training teachers to work with handicapped persons in career and vocational education. The following recommendation is therefore tendered.

5.1 RECOMMENDATION:

TEACHER TRAINING INSTITUTIONS SHOULD INCREASE EFFORTS TO EXPAND SPECIAL EDUCATION PROGRAMS TO INCLUDE TRAINING IN THOSE COMPETENCIES RELATED TO CAREER EDUCATION AND VOCATIONAL EDUCATION.

One private university developed such a program in career education in early 1975 (Gardner & Warren, in press) and others have been concerned with vocational education. The numbers of programs are few. Many of the competencies have been identified and there is considerable data available on the topic (Resnick & Carmody, 1977).

Respondents were less likely to give a high priority to research activities or evaluation activities. Yet program development, refinement and improvement are contingent on the quality of such activities. The following recommendation is therefore made.

5.2 RECOMMENDATION:

TEACHER TRAINING INSTITUTIONS AND FEDERAL AND STATE TRAINING AND CERTIFICATION AGENCIES NEED TO INCREASE THEIR EFFORTS TO ASCERTAIN THAT PROFESSIONALS IN THE FIELD (TEACHERS, ADMINISTRATORS) HAVE THE REQUISITE SKILLS AND KNOWLEDGE OF THE EVALUATION AND RESEARCH PROCEDURES OF THE PROFESSION TO ENSURE A CONTINUING INTEREST AND INVOLVEMENT IN DEVELOPING AND EVALUATING THE TEACHING-LEARNING PROCESS.

In these times of economic depression, taxpayers are reluctant to fund "reforms" (like the career education movement) without clear-cut, hard data to establish its superiority over other methodologies.

SUMMARY RECOMMENDATIONS

In addition to the twenty-three specific recommendations made in the preceding sections, the following high priority recommendations are offered.

1. RECOMMENDATION:

HIGH PRIORITY SHOULD BE GIVEN TO INCREASING TEACHER TRAINING EFFORTS IN THE CAREER EDUCATION OF MILDLY HANDICAPPED YOUTH.

This can take the form of formal undergraduate and graduate programs. It should also involve a concentrated effort to deliver in-service training to every teacher in our educational system. The training of administrators, school board members and other decision-makers should also be included.

2. RECOMMENDATION:

HIGH PRIORITY SHOULD BE GIVEN TO ESTABLISHING PROCEDURES WHICH WILL ENSURE INCREASED INVOLVEMENT OF THE COMMUNITY IN THE CAREER EDUCATION PROCESS.

By involvement, we mean the collaboration, not cooperation, of business, industry and labor in policy making, instruction and curriculum. Also included in this effort should be increased involvement of parents and other community organizations.

3. RECOMMENDATION:

EFFORTS SHOULD BE INCREASED TO ENSURE APPROPRIATE EVALUATION OF THE VARIOUS CAREER EDUCATION METHODOLOGIES AND THE DISSEMINATION OF THE RESULTS.

Evaluation would include an effort to define specific career education treatments and establish procedures for evaluating outcomes. Both the affective as well as the cognitive domains should be addressed.

4. RECOMMENDATION:

HIGH PRIORITY SHOULD BE GIVEN TO FUNDING CURRICULUM DEVELOPMENT PROJECTS WHICH WILL YIELD VALIDATED CURRICULUM PRODUCTS AND MATERIALS FOR USE WITH MILDLY HANDICAPPED STUDENTS IN CAREER EDUCATION PROGRAMS.

Recent reviews of the literature (Gardner & Kurtz, 1977) have shown a dearth of such materials available in vocational education of the mildly handicapped. Yet special curriculum materials may be critical to helping handicapped youth meet the overall objective of mastering entry level skills (Gardner & Kurtz, in press).

5. RECOMMENDATION:

HIGH PRIORITY SHOULD BE GIVEN TO EFFORTS TO INCREASE AVAILABLE STATE, FEDERAL AND LOCAL FUNDS FOR DEVELOPING COMPREHENSIVE CAREER EDUCATION PROGRAMS.

By comprehensive, we mean a K-Life system in which career education is an integral part of the total curriculum (curriculum infusion). To date, the majority of funds have been allocated for demonstration projects. To fully implement career education, adequate funds must be provided.

A CAUTIONARY NOTE: POSSIBLE RESPONSE SET BIAS

A frequent problem in using rating scales is the tendency for a respondent's rating of a specific item to be influenced by his previous responses (see Gardner, 1974). To test for possible "halo effects" or response-set, the following procedures were followed:

1. a 20% random sample (N=15) of the 76 respondents was selected by using a Texas Instrument SR51 random key.

2. A random sample of items from the section on method/activity (Table 10) was selected, using the same procedures, (questions 2, 4, 5, 7, 12, 13, 14, 18).

3. Pearson Product Moment Correlations were computed between the fifteen subjects' responses to each of the eight questions. The correlation matrix is reported in Table 19, on the next page. All correlations were significant at the .05 level of confidence except for the correlations between the answers to items 12/7; 13/7; and 13/12. (These correlations were $p = < .10 > .05$.)

The high, significant, positive correlations between the responses to the majority of the questions in this section suggest a possible halo effect in the response patterns of the sample. Data should be interpreted with caution.

A similar pattern of responses was noted in tabulating the sub-items of question 16 under student information (see Table 16). No formal statistical analysis was performed. However, clearly the majority of the responses to one item could be predicted by the responses to any other item. In fact, many respondents just drew a line to indicate a "Yes" response to all items or to indicate a "No" response to all items.

Table 19

CORRELATION MATRIX

Responses to Items 2, 4, 5, 7, 12, 13, 14, 18 on Table 10, Methods/Activities for a Random Sample of 15 Respondents[1]

VARIABLES	2	4	5	7	12	13	14	18
2	1.00	*.737	*.786	*.581	*.663	*.784	*.784	*.758
4	*.737	*1.00	*.897	*.675	*.746	*.626	*.783	*.694
5	*.786	*.897	*1.00	*.529	*.646	*.696	*.832	*.815
7	*.581	*.675	*.529	1.00	**.497	**.404	*.629	*.614
12	*.663	*.746	*.646	**.497	1.00	**.461	*.525	*.685
13	*.784	*.626	*.696	**.404	**.461	1.00	*.792	*.728
14	*.784	*.783	*.832	*.629	*.525	*.792	1.00	*.728
18	*.758	*.694	*.815	*.614	*.685	*.728	*.728	1.00

[1]Note: All questions and subjects selected at random.
* p = .05
** p = <.10>.05.

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